



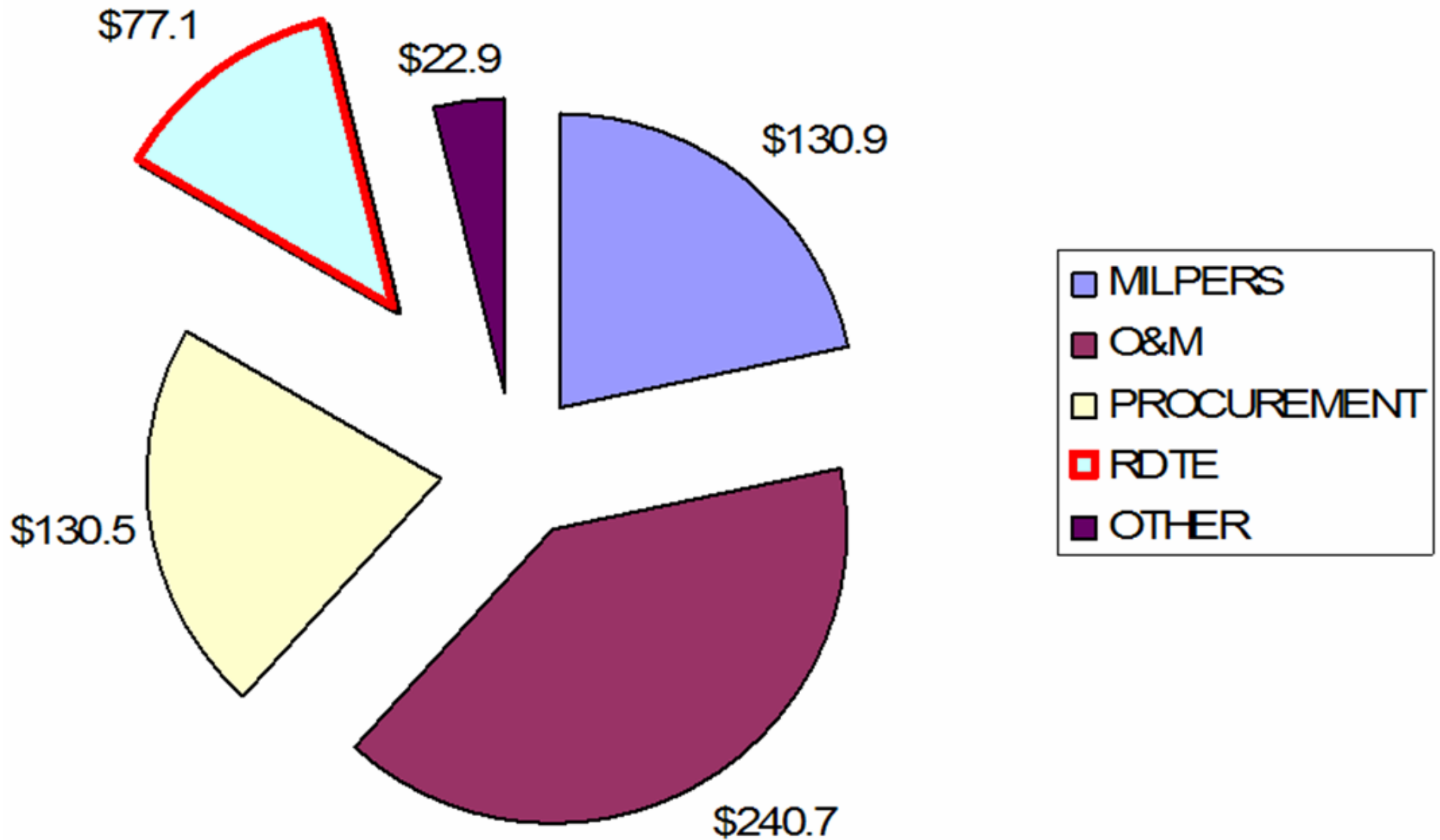
Acquisition Research Program: Creating Synergy for Informed Change

The Crossing

LT Suzanne L. Schang

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAY 2007		2. REPORT TYPE		3. DATES COVERED 00-00-2007 to 00-00-2007	
4. TITLE AND SUBTITLE The Crossing				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School, Monterey, CA, 93943				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES 4th Annual Acquisition Research Symposium: Creating Synergy for Informed Change, May 16-17, 2007 in Monterey, CA					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 25	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

President's DoD Budget Authority FY07 (\$601.9B)



Agenda

1. **Coordination**
2. **Complications**
3. **Command and Control?**
4. **End-User Issues**
5. **Case studies**
6. **Graphs**

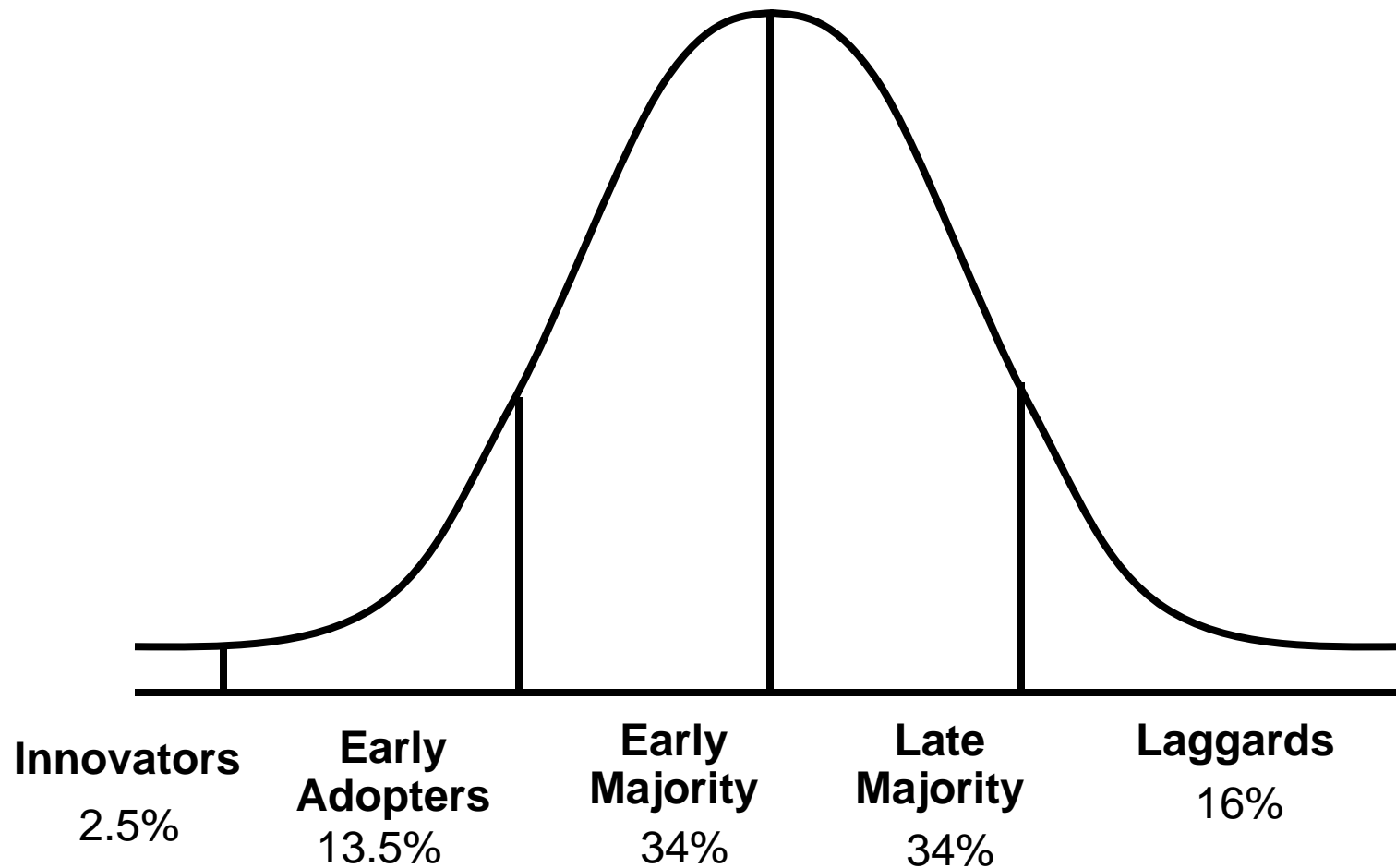


1. Coordination

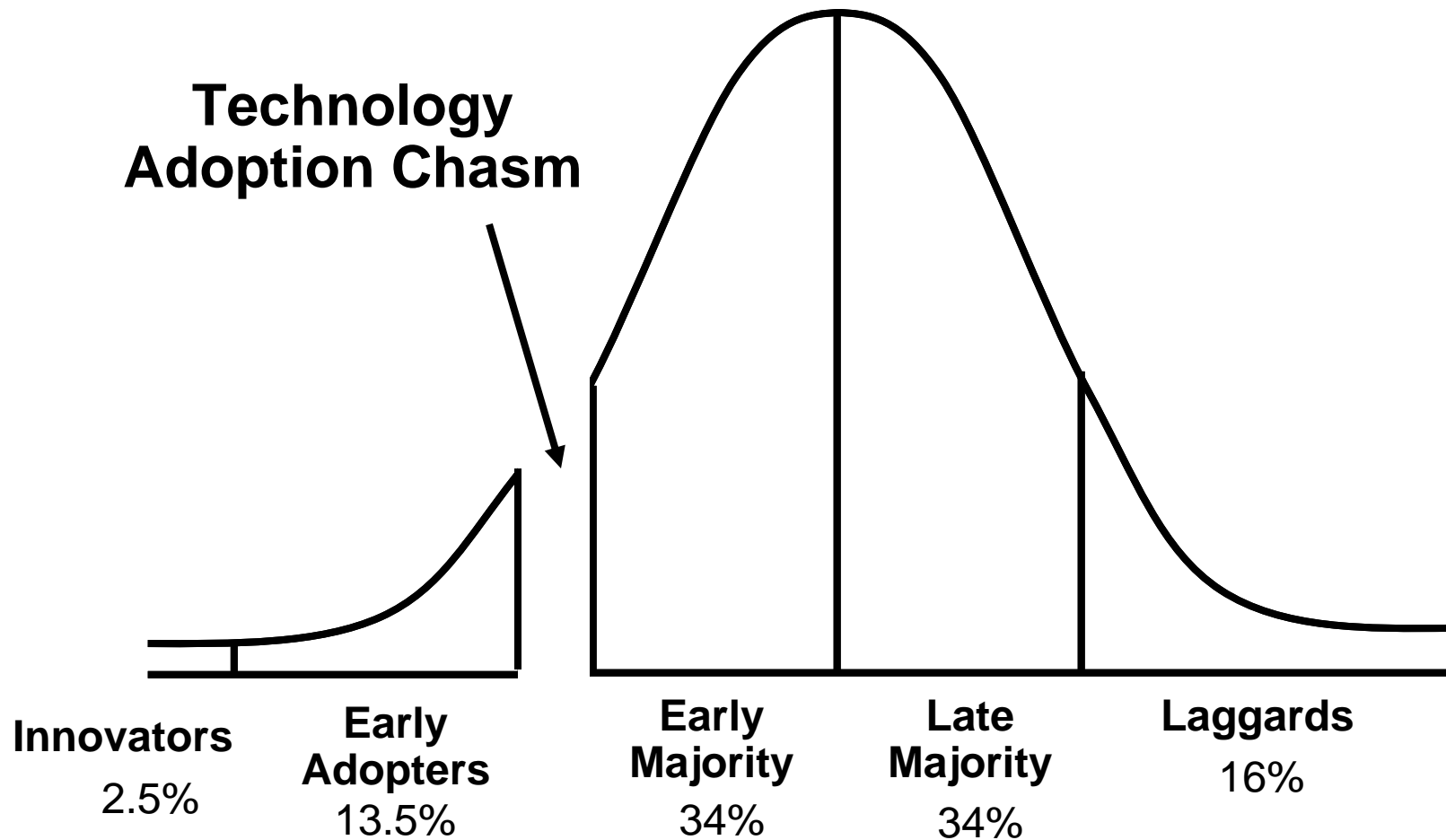
- **Externalities**
- **Network Externalities**
(Direct and Indirect)
- **The Telephone**
- **VHS versus Beta VCRs**
- **TAL and The Chasm**



Technology Adoption Life Cycle (TAL)



Technology Adoption Life Cycle (TAL)



2. Complicated

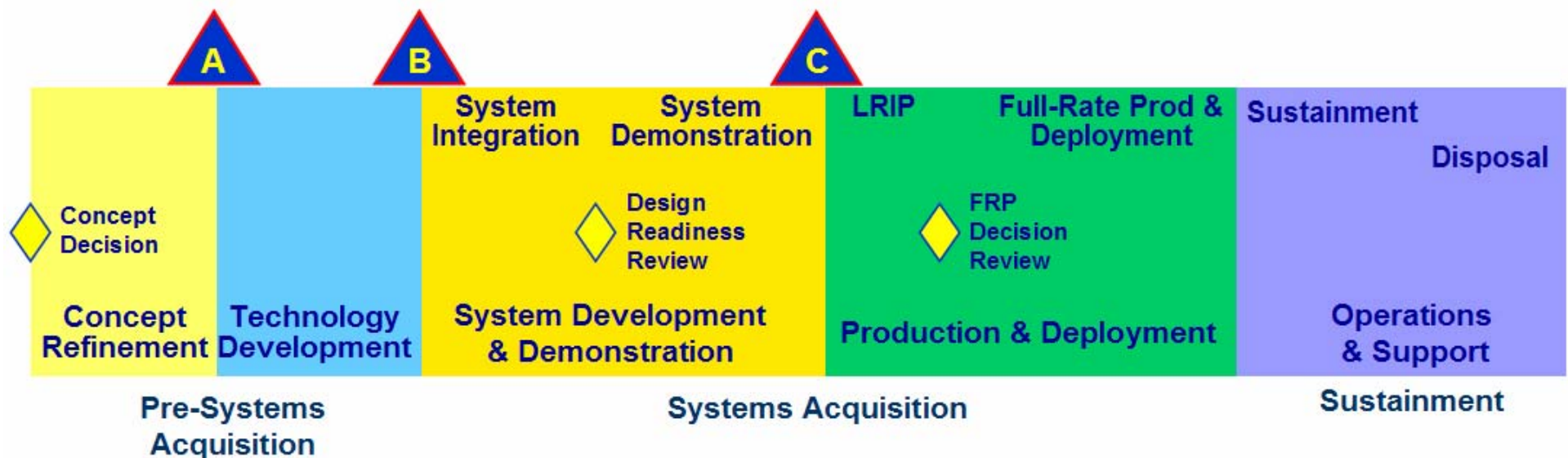
- **Decision-Maker / Buyer / End-User Chain**
- **Benefits > Costs ???**
- **DoD Acquisition Process**
- **AS&C Office**
- **JCTD Program**



The Defense Acquisition Management Framework

Technology Opportunities & User Needs

- Process entry at Milestones A, B, or C
- Entrance criteria met before entering phases
- Evolutionary Acquisition or Single Step to Full Capability



Initial Capabilities Document (ICD)

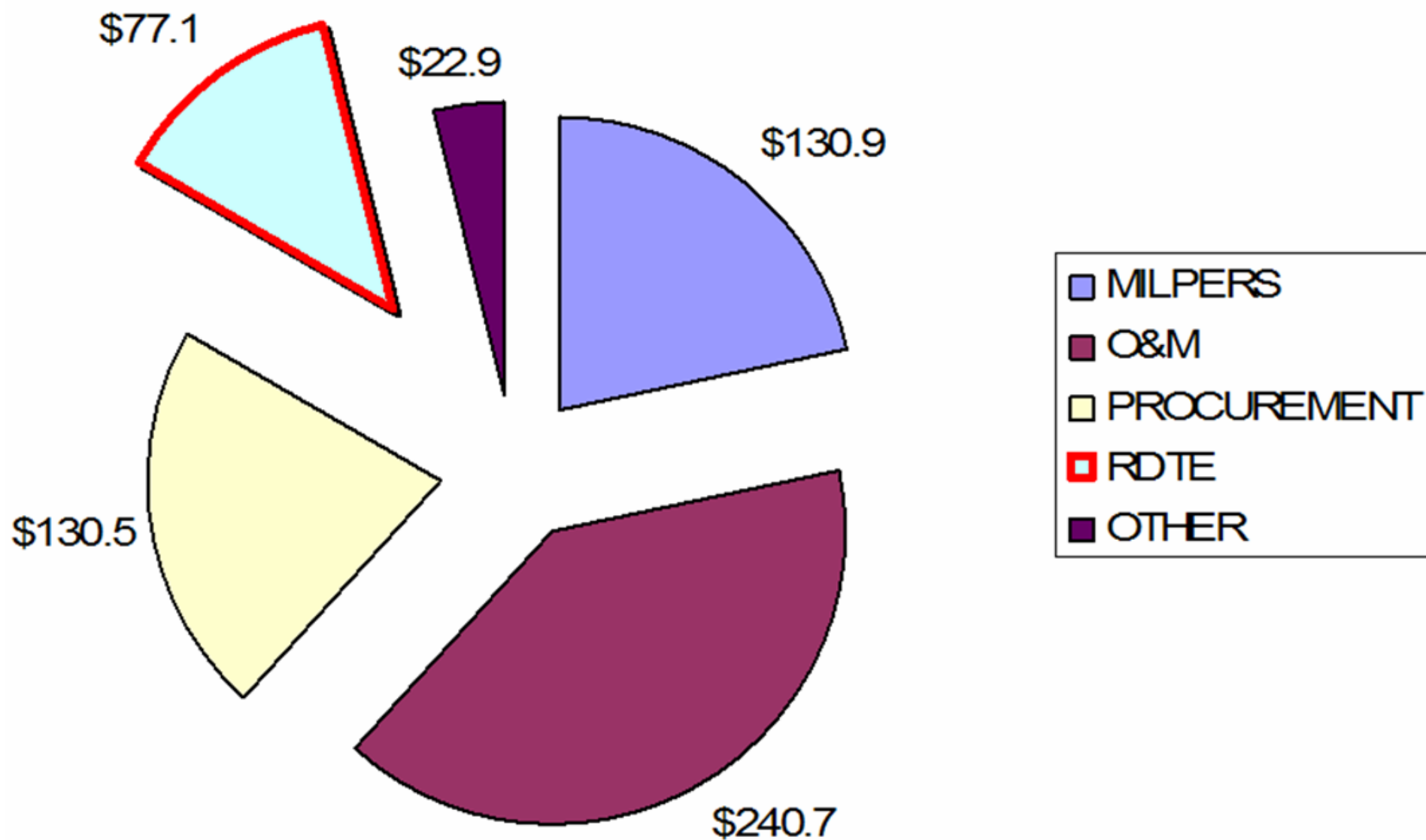
Capability Development Document (CDD)

Capability Production Document (CPD)

Validated & approved by requirements Validation Authority

Relationship to Joint Capabilities Integration & Development System

President's DoD Budget Authority FY07 (\$601.9B)



FY 2007 RDT&E President's Budget Request

DDR&E/AS&C Transition Programs are Highly Leveraged across Service and Agency Budgets
Less than 1% of RDT&E each year

Components (All RDT&E)	\$B
USA	10.9
USAF	24.4
USN/USMC	16.9
Def Agency & SOCOM	20.8

(BA6 + BA7 = \$27.23B)

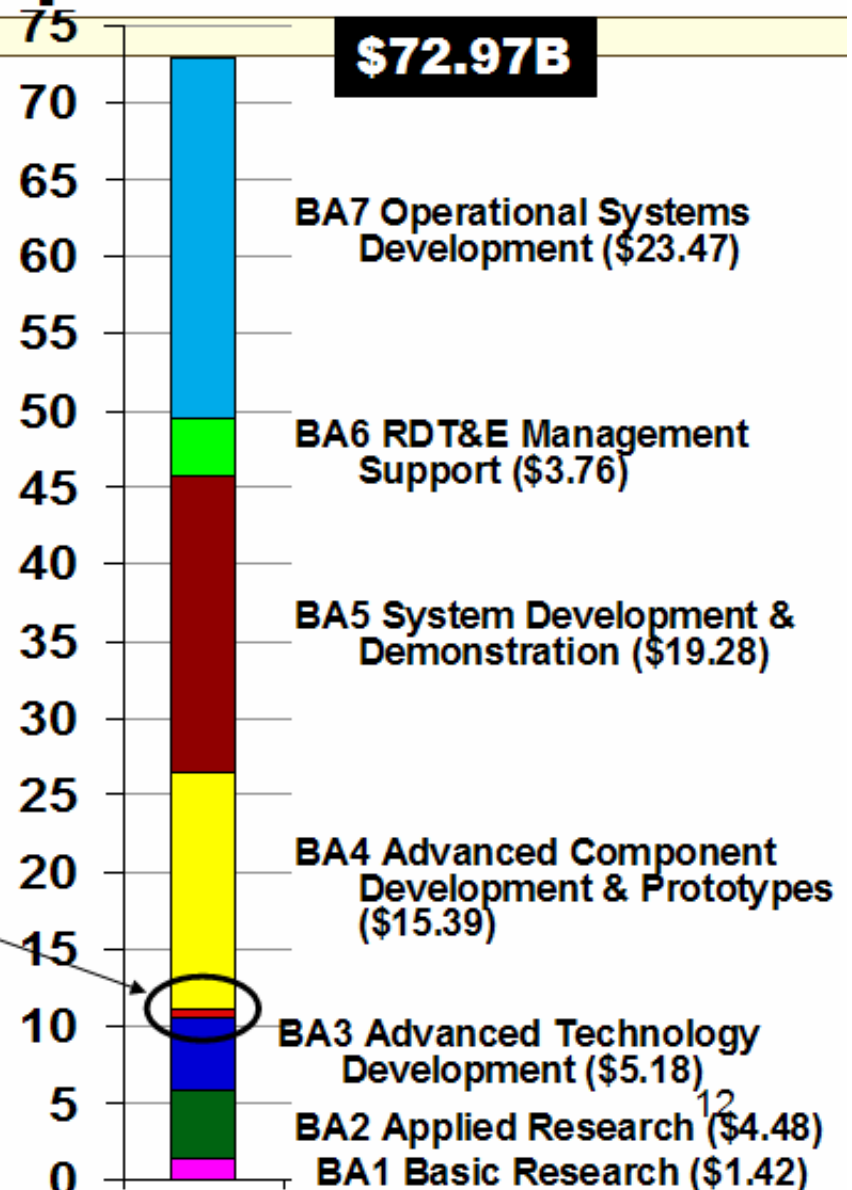
Development
(BA4 + BA5 = \$34.66B)

DDR&E/AS&C Total is \$0.553 B

(Includes USJFCOM \$0.220B)

Technology Base
(BA1 + 2) = \$5.90B

Science and Technology
(BA1 + BA2 + BA3 = \$11.08B)
15% of RDT&E

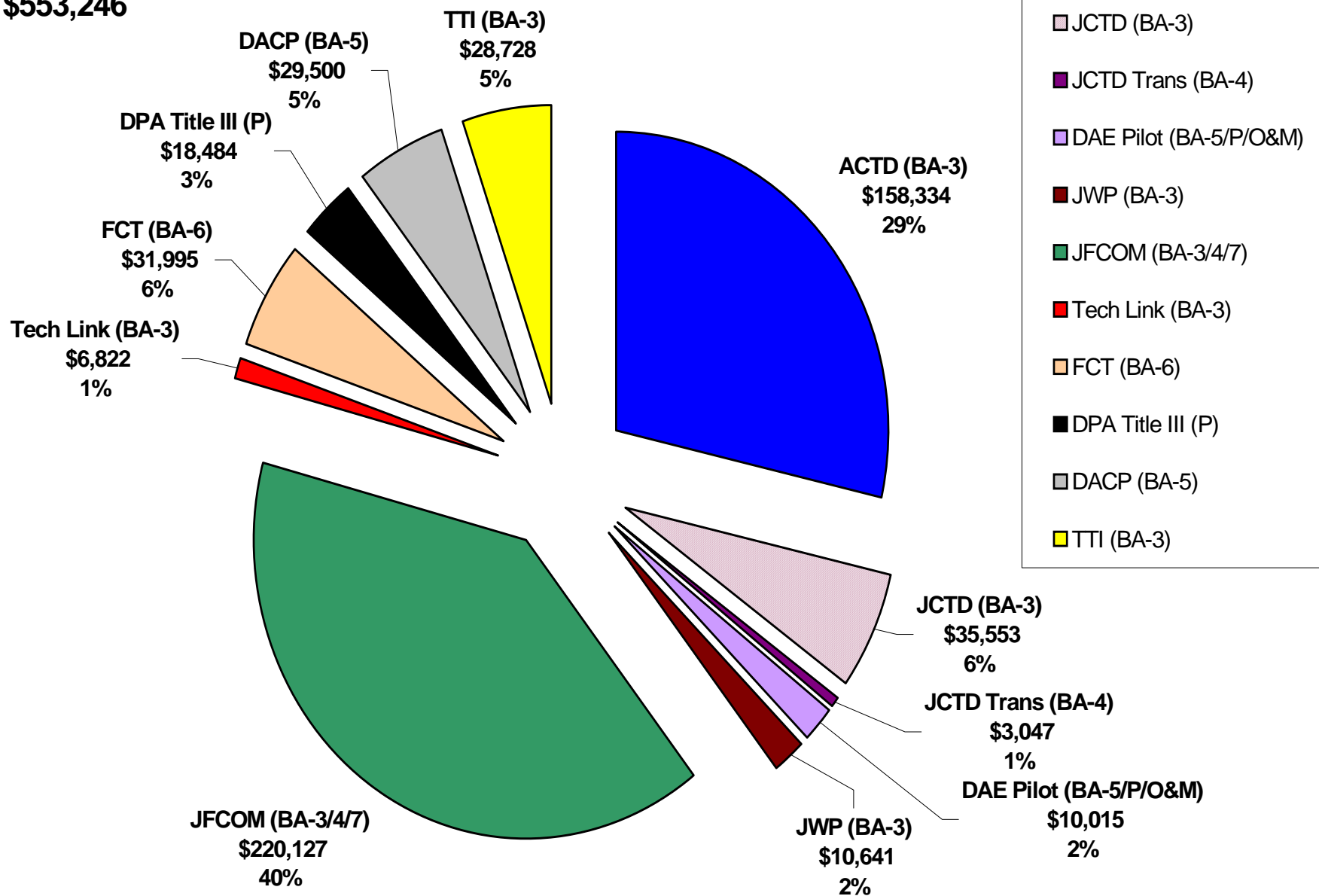


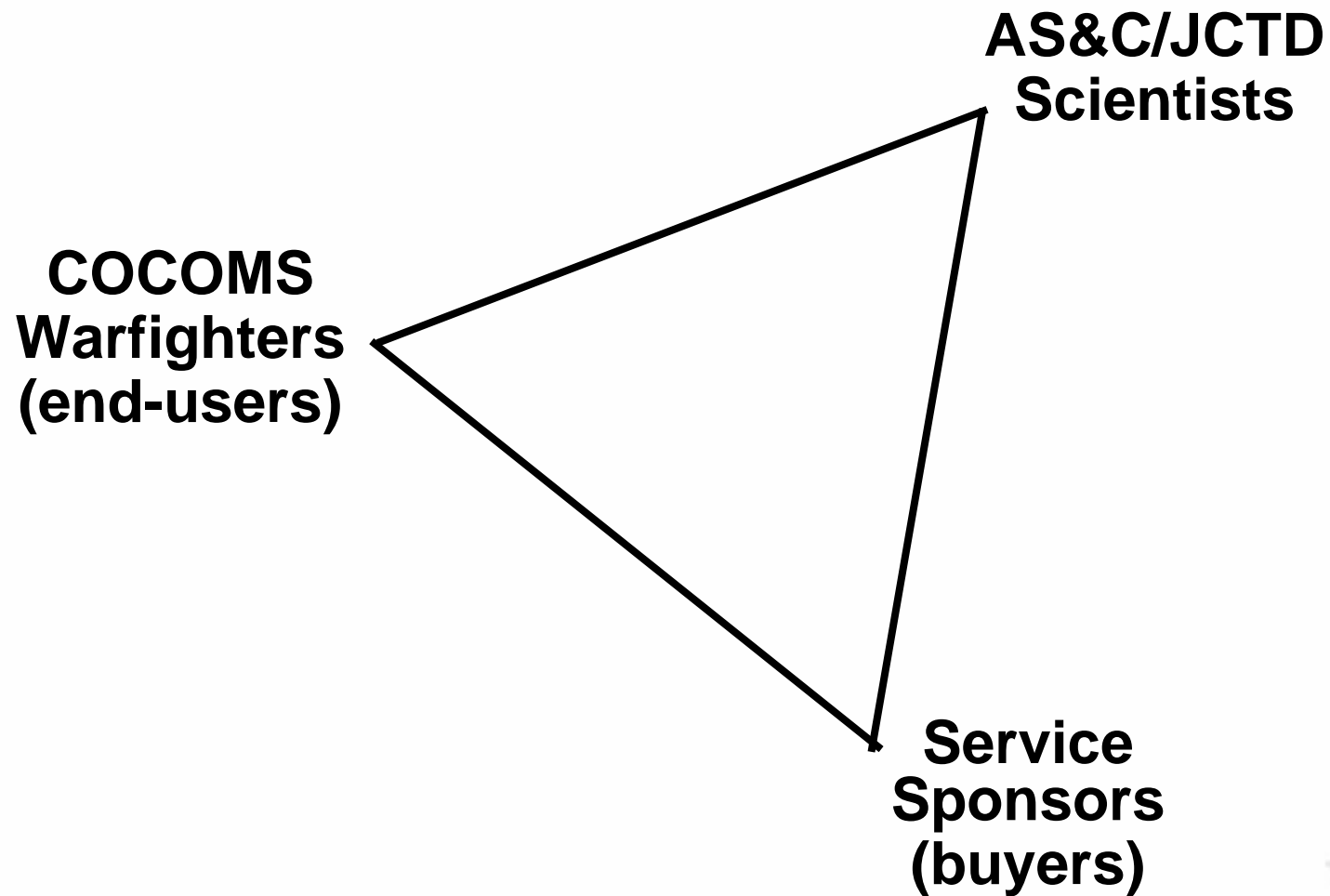
FY 2007 AS&C Direct Resource Oversight

Total PresBud (\$000)

\$553,246

FY 2007 PBR (Feb 2006)







THE WORLD WITH COMMANDERS' AREAS OF RESPONSIBILITY



3. C2?

- **Command and Control solution?**
- **Aligning incentives**
- **End-user issues**



4. End-User Issues

- **control**
- **mission and pressures**
- **misaligned incentives**
- **management commitment**
- **technology champion**
- **complementary goods**



5. Case Studies

- **Civilian**
 - CASE (technology with org externalities)
 - HTAs (technology with org externalities)
 - QWERTY (indirect network technology)
 - **RFID (direct and indirect network technology with org ext)**
- **Military**
 - NMCI (direct network technology with org ext)
 - **RFID (direct and indirect network technology with org ext)**



6. Graphs

(1) Situation One

- there are no externalities to complicate the situation
- buyer is the same as the end-user

(2) Situation Two

- there are organizational externalities involved
- each end-user's benefit is determined only by his/her own adoption decision, but some external benefits accrue to the organization as more end-users adopt

(3) Situation Three

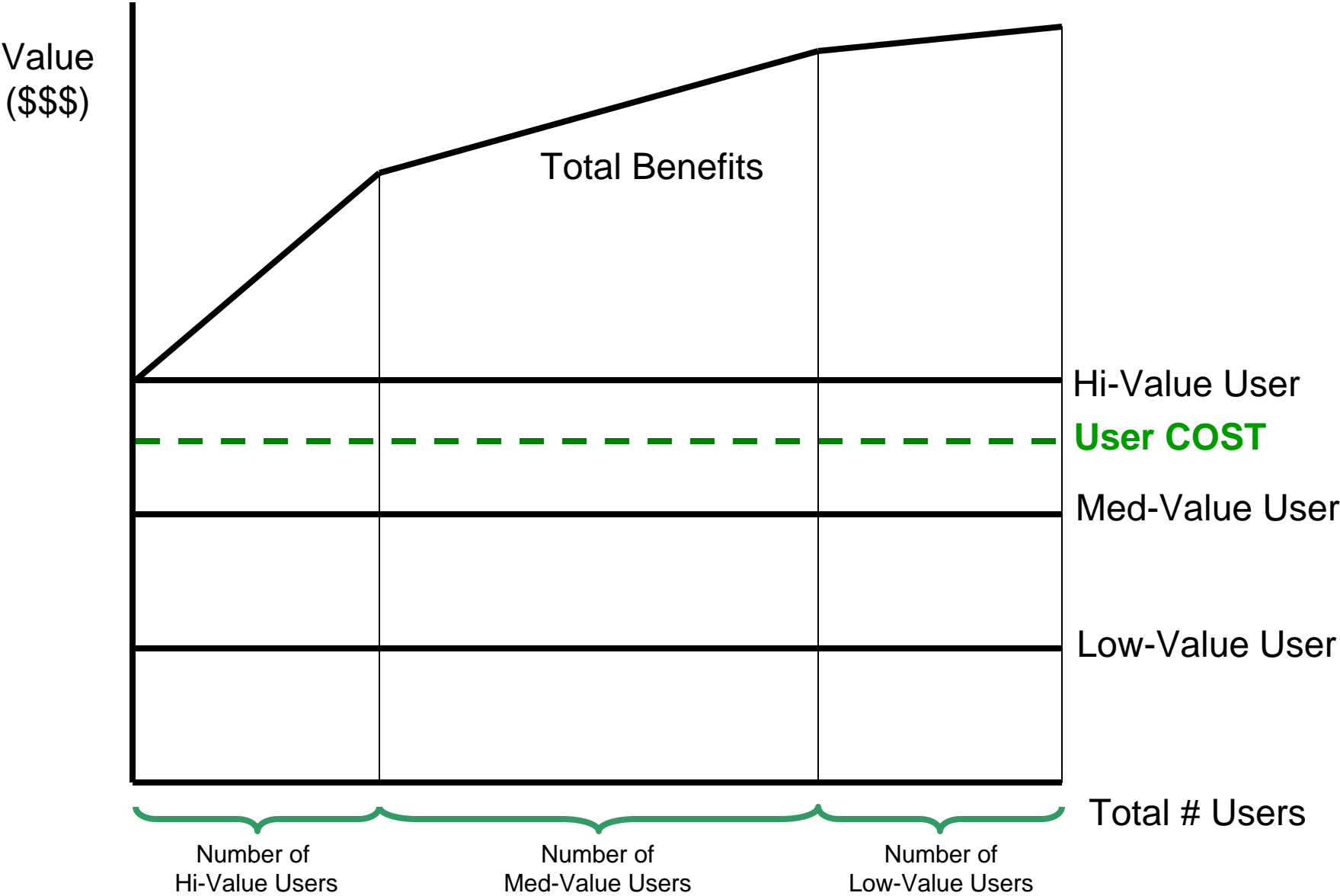
- there are direct network externalities involved (value depends on size of user-base)
- buyer and the end-user are different entities

(4) Situation Four

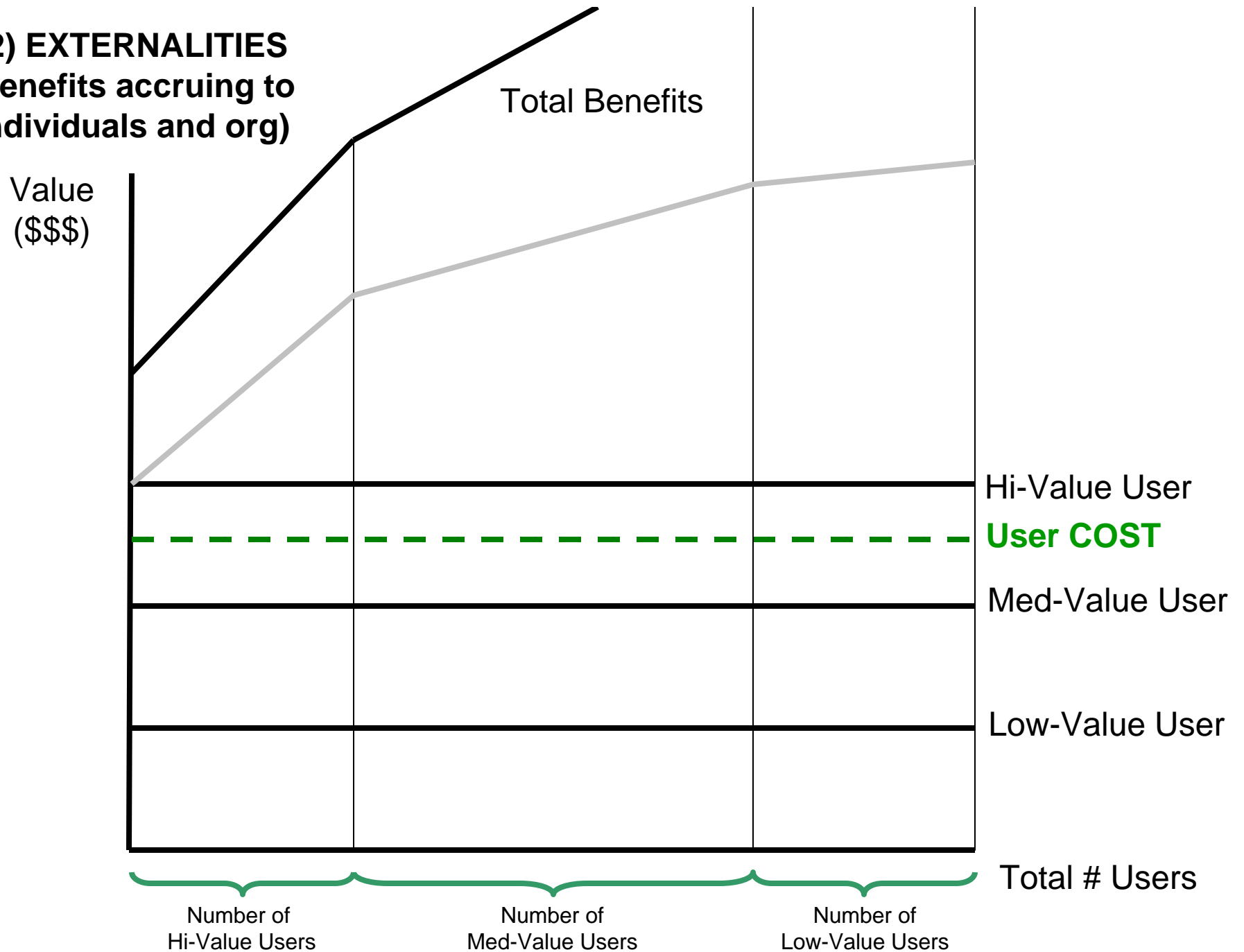
- there are indirect network externalities involved (value depends on number of complementary goods available which affects the size of the user-base)
- buyer and the end-user are different entities



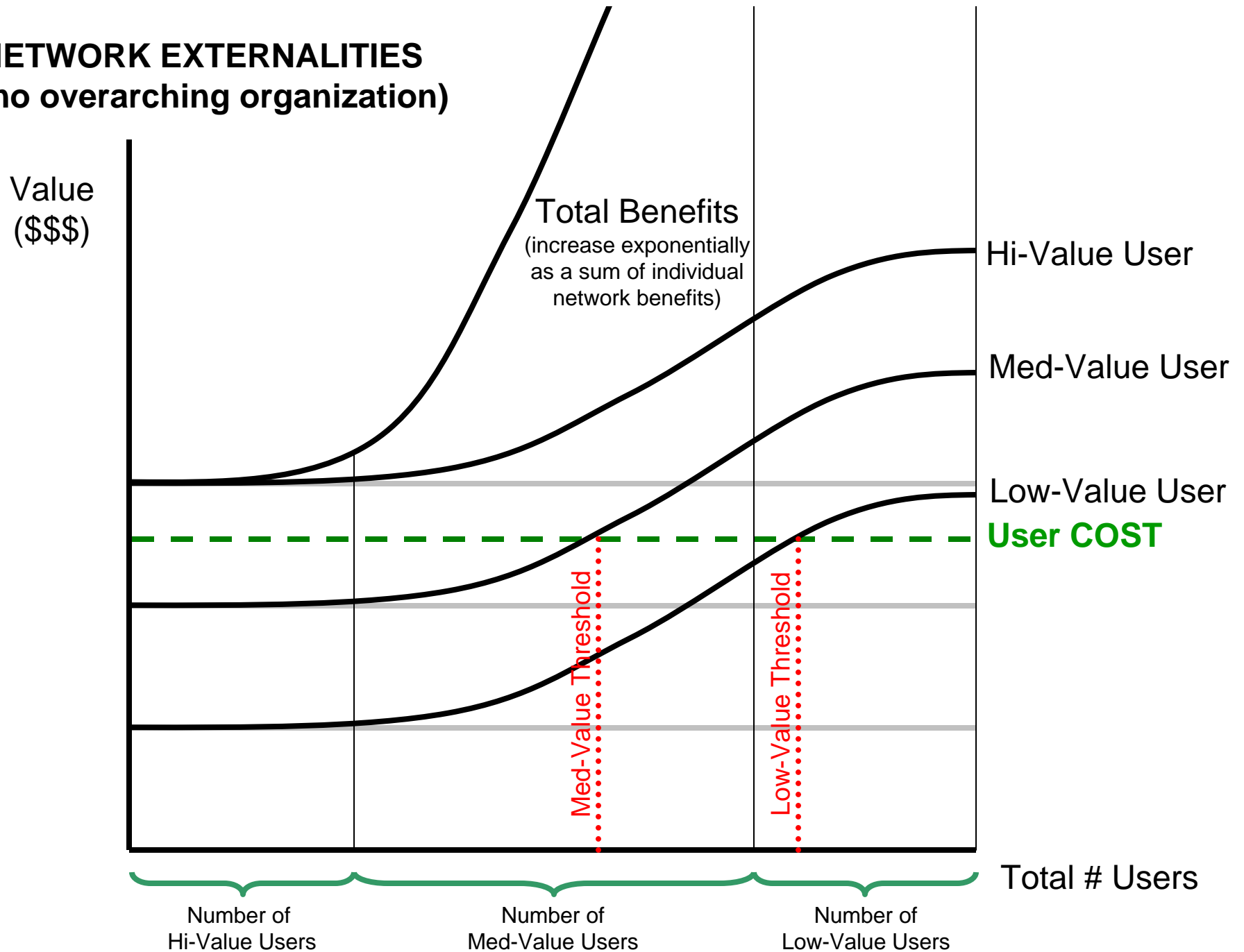
(1) NO EXTERNALITIES



(2) EXTERNALITIES
(benefits accruing to
individuals and org)

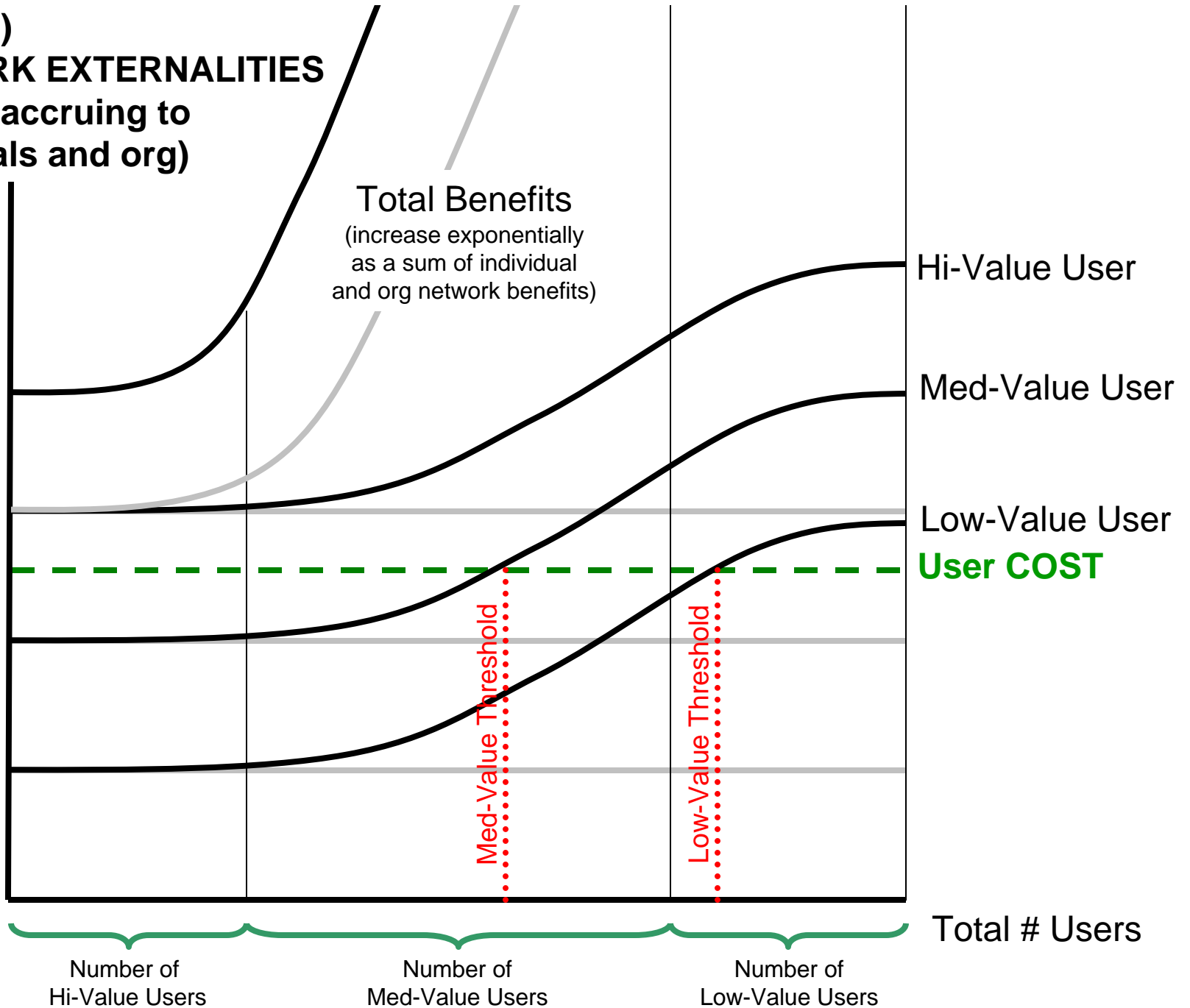


NETWORK EXTERNALITIES (no overarching organization)



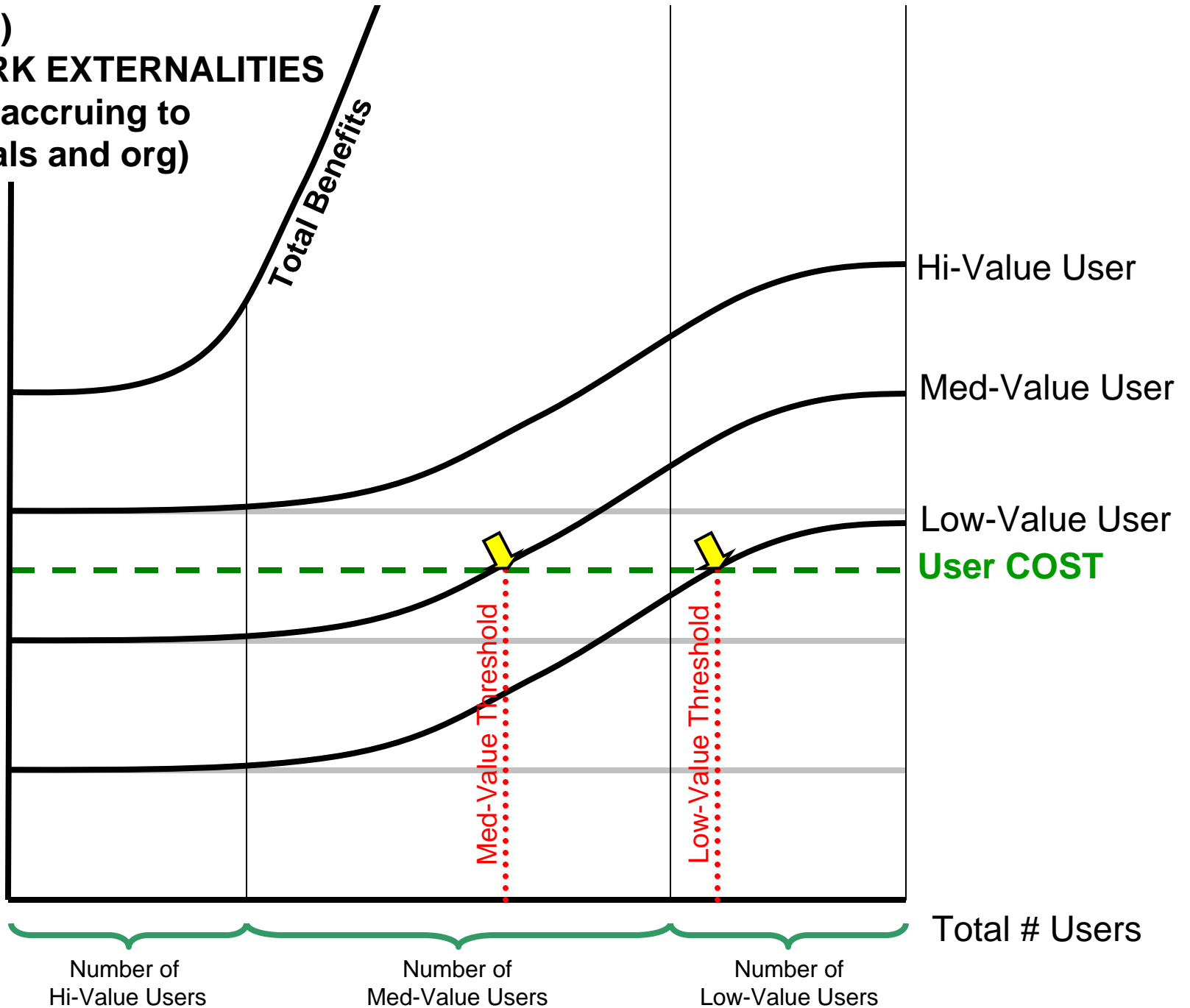
(3) and (4)
NETWORK EXTERNALITIES
(benefits accruing to
individuals and org)

Value
(\$\$\$)



(3) and (4)
NETWORK EXTERNALITIES
(benefits accruing to
individuals and org)

Value
(\$\$\$)



Recap: End-User Issues

- **control**
- **mission and pressures**
- **misaligned incentives**
- **management commitment**
- **technology champion**
- **complementary goods**



Conclusion

- 1. Coordination**
- 2. Complications**
- 3. Command and Control?**
- 4. End-User Issues**
- 5. Case studies**
- 6. Graphs**





Acquisition Research Program: Creating Synergy for Informed Change



Questions?